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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,315	02/01/2001	Hyun-Sook Jung	41671/DBP/Y35	8247

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EXAMINER

MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/775,315

Applicant(s)

JUNG ET AL.

Examiner

Julian Mercado

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

This Office action is responsive to applicant's amendment filed December 1, 2005.

Claims 1-4 and 10 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as obvious over Mayer. (U.S. Pat. 5,783,333).

The rejection is maintained for the reasons of record. Applicant's arguments have been fully considered, however they are not found persuasive.

Applicant submits that in Mayer, the binder is only in the formation of the *electrode* and not in the formation of the *active material*. (emphasis as submitted) This argument is not persuasive. See col. 12 line 60 et seq. as follows: "Initially, all solid components of the cell—including lithium metal oxide(s), electronic conductors, etc.—are mixed. Next, they are formed in a slurry using a solution of the binder." Indeed, the binder is used in both the electrode and the active material, *inter alia*.

Art Unit: 1745

The declaration under 37 CFR 1.132 filed on December 1, 2005 is insufficient to overcome the rejection of claim 10 based upon Mayer as set forth in prior Office action. The declaration sets forth a comparison between battery cells without binders (allegedly as in Mayer) and battery cells with binders, as in the claimed invention. In view of Mayer being maintained as readable on the present claims insofar as the binder is in fact part of the active material, the comparison shown in the declaration is not deemed representative of any differences that may exist between the prior art and applicant's claims.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pynenburg et al. (U.S. Pat. 5,429,890) in view of Hasegawa et al. (U.S. Pat. 5,370,948).

The rejection is maintained for the reasons of record. Applicant's arguments have been fully considered, however they are not found persuasive.

Applicant submits that Pynenburg does not correlate an increase in cell capacity with the weight ratio of the lithium manganese oxides to the other lithium metal oxides. In reply, the examiner asserts that Pynenburg teaches that "[t]he increase in cell capacity is obtainable from use of the physical mixture of the present invention as the cathode active materials". See col. 8 lines 47-58. The 1:1 ratio of oxides taught by Pynenberg, which applicant appears to point out as being outside the claimed less than 1:1, is deemed merely exemplary and not a limiting embodiment. Indeed, it is the *combination* of the metal oxides that results in the increased cell capacity.

The declaration under 37 CFR 1.132 filed on December 1, 2005 is insufficient to overcome the rejection of claims 1-4 based upon Pynenburg et al. in view of Hasegawa et al. as

Art Unit: 1745

set forth in prior Office action. The comparative data shown in the declaration is not deemed representative of the ratio specifically taught by the prior art. The “Greater than 1” data point submitted is unclear as to what extent this variable is greater than, e.g. the 1:1 ratio exemplified by the prior art. The numerical equivalent of “greater than 1” is unclear. Notwithstanding, the examiner notes that Pynenburg et al. specifically discloses the mixture as being in a ratio of from 1:10 to 10:1. See col. 7 lines 55-60. It is asserted that optimization of the metal oxides is result-effective given that *combining* the metal oxides in and of itself would naturally comprise optimization of its relative proportions so as to achieve the increased cell capacity resulting from this combination.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

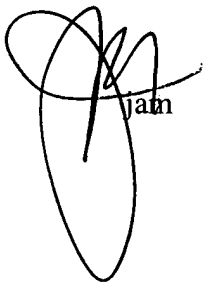
Art Unit: 1745

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to be 'J. Mercado', with a large loop at the bottom.

PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER